

Application No. 10/051,927
Amendment dated January 12, 2005
Reply to Office Action of July 12, 2004

Remarks/Arguments

The Applicant is responding to the examiner's office action of July 12, 2004 with reference to the above-captioned patent application. The record should reflect that the present application has been assigned to Thermal Technologies, Inc., the Applicant's present employer, in a recording filed with the USPTO on October 13, 2004. As of the date of this response the USPTO has not provided a reel and frame number of the recording of the assignment, so a true and correct copy of the assignment is enclosed with this response. A statement under 37 CFR 3.73(b) is also provided with the present filing to provide proof of authority of the assignee to act.

The Applicant is availing itself of three months of extension of time under the provisionals of 37 CFR 1.136(a). The appropriate fee is presented with this filing.

Claims 1 through 12 are in the case. Claims 1 through 3 inclusive, and 5 through 8 inclusive, and 10 through 12 inclusive were rejected under 35 USC 102(b) as being anticipated by U.S. Patent No. 5,228,313 to **Okamoto, et al.** Specifically, the examiner believed Figure 4 of **Okamoto** disclosed the same structure as the claimed invention as set forth more fully in the office action.

The examiner rejected claims four and nine under 35 USC 103(a) as being unpatentable over U.S. Patent '313 to **Okamoto, et al.** in view of U.S. Patent No. 5,312,034 to **Nakagawa, et al.** as more fully developed in the examiner's office action.

The Applicant respectfully points out that the '313 patent discloses a food storage conditioning room that presents an entirely different purpose. As the examiner will note, the '313 patent discloses a room with ethylene absorbing members provided

on at least a portion of the inner box with one surface of each of the ethylene absorbing members exposed to the storage room. In considering the structural differences, particularly in **Figure 4** of the '313 patent, it will be noted the stream of cold air in the reference cited is transmitted through the room by descending space on one side of the room, and returning the pressurized fluid in a vertical direction towards the pressure providing source. Clearly the present invention provides pressurized flow downward on both sides of room, as illustrated in **Figure 5** of the present application. The return stream of fluid, on the low pressure side of the circulating fans creating a pressure differential is returned to the front side of the room shown more clearly in **Figure 6**, a vertical plan view of the invention. This structural and operational difference is patently distinct when comparing the present disclosure with the '313 patent.

A further, important difference between the present invention and U.S. patent '313 issued to **Okamoto, et al.** is that the reference does not provide for means which distribute the air flow between the inner and outer walls to separated vertical and horizontal areas which are separately pressurized, as more particularly pointed out in the disclosure and as shown in **Figure 4** and **Figure 5** of the present invention. Accordingly, there is no defined air flow channels within the inner and outer sidewalls as set forth in the pending claim 1. The Applicant provides additional new claims 13 and 14 which point out the patentable distinction with more particularity.

With respect to the '034 patent to **Nakagawa, et al.**, the Applicant suggests that it would not be obvious to one skilled in the art to combine the references to obtain the invention as claimed. In view of the remarks above related to the '313 patent, the '034 patent contemplates fumigation of produce for various purposes, providing air flow generally within the room without a pressure structure to provide a uniform application

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of air flow so critical in produce ripening. Moreover, one skilled in the art having access to U.S. Patent '313 to **Okamoto, et al.** while reviewing also the disclosure in U.S. Patent '034 to **Nakagawa, et al.** would hardly be taught to create the structure in the present invention which provides for the isolated air flow taught by the disclosure.

As clearly shown in the present disclosure, and specifically considering the details discussed and illustrated in **Figure 4** and **Figure 5**, the difference between the existing art and in particular those cited by the examiner are shown specifically in the Applicant's disclosure at the opening **52**, being both the side view of **52b** shown in **Figure 4** and the edge view of those openings **52a**, shown in **Figure 5**. An important difference and an element of the improvement provided by the present invention is the ability to isolate the pressurized air output from each output of the fans **30**, which is introduced into separate vertical volumes shown by vertical partitions in phantom view in **Figure 4**, horizontal elements **56** shown in the same figures. By providing an outlet **52** separately, one for each rectangular pressurized area defined by the structure, it will be appreciated that palletized produce, *i.e.* the stacked boxes of produce shown in **Figure 5** are provided with isolated air pressurized areas so that removal of boxes from the top of the stack will not cause a loss of pressure to the lower boxes. Regulated air flow across the boxed fruit can continue with a partially loaded room. The original claim 1 presents the distinction in the limitation of "...a plurality of vertically oriented partitions.." contained in the claim.

The Applicant would point out and argues that the prior art, there being other pressurized air flow controlled rooms taught in such art, do not teach apparatus which allows for regulating air flow across boxed produce to remain relatively uniform as the room is unloaded for use of the palletized produce.

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Returning for example to U.S. Patent '313 to *Okamoto, et al.*, the room taught in this disclosure provides for treatment of what appears to be palletized produce, but does not address the problem of local retail use of small quantities of boxed produce which must be withdrawn from the room on a box by box basis. The prior art presented by the examiner treat the entire enclosed area or room, without regard to any separate sub-structures within the sidewalls of the room to introduce air flow separately into chambered areas which are unaffected by the loss of pressure by other areas when boxed produce is removed from the top to the bottom, as it is required for use. Because there are separate air flow sources, as shown in the disclosure, introducing what essentially is pressurized air into each of the isolated spaces, loss of back pressure from removal of boxes at a certain height of the product will not substantially reduce the air flow to the lower boxes because of the restrictions presented by openings 52. This distinction and improvement is taught in the pending application.

While the Applicant believes that the original claims presents such distinguishing characteristics because the original independent claim 1 presents limitation of air flow channels of each sidewall, Applicant introduces new independent claim 13 and 14 with this amendment, which it argues in good faith more particularly point out what is claimed by the invention. The examiner will note that new claim 13 is similar to original claim 1 with a clarification in the third clause adding a limitation of "...at least two separate air flow channels which are isolated from each other.." Claim 14 is not modeled on any original claim but presents claimed elements which also more particularly point out the patentable distinctions of the invention.

Conclusions

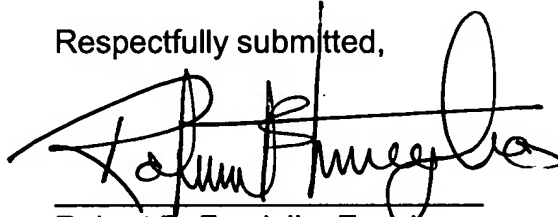
With the above, the Applicant respectfully suggests that he has presented argument which traverses the examiner's objections based on the specific prior art

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referenced. In view of the examiner's arguments and the clarifications offered, the Applicant respectfully requests that the examiner remove such objections presented in the first office action, permitting a notice of allowance to be issued. The Applicant believes that he has addressed all of the rejections, objections and other requirements of the examiner. In the event that the examiner may identify patentable subject matter but still requires additional prosecution in view of the new presentation in this response, the examiner is most cordially invited to call the undersigned counsel at the examiner's convenience to discuss desirable additional amendments or changes to the extent necessary to place the case in condition for allowance.

Dated: January 12, 2005

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Robert B. Famiglio', written over a horizontal line.

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